

Claims

1. A method of determining skin health of an area of  
5 skin, said method comprising the steps of

(i) exposing said area of skin to a first exposure  
radiation to induce said area of skin to emit a  
first fluorescent emission, wherein said first  
exposure radiation comprises primarily of  
wavelengths of from about 290 nm to about 300  
nm;

10 (ii) measuring the intensity of said first  
fluorescent emission having a wavelength of  
from about 320 nm to about 350 nm;

15 (iii) exposing said area of skin to a second  
exposure radiation to induce said area of skin  
to emit a second fluorescent emission, wherein  
said second exposure radiation comprises  
primarily of wavelengths of from about 330 nm  
20 to about 420 nm;

(iii) measuring the intensity of said second  
fluorescent emission having a wavelength of  
from about 380 nm to about 470 nm;

25 (iv) calculating a ratio of said intensity measured  
in step (ii) to said intensity measured in step  
(iv); and

(v) comparing said ratio to a control ratio.

30 2. A method of claim 1, wherein said first exposure  
radiation comprises primarily of wavelengths of about 295  
nm.

3. A method of claim 2, wherein said step (ii) comprises measuring the intensity of said first fluorescent emission having a wavelength of about 340 nm.

5

4. A method of claim 1, wherein said second exposure radiation comprises primarily of wavelengths of from about 390 nm to about 410 nm.

10 5. A method of claim 2, wherein said second exposure radiation comprises primarily of wavelengths of from about 390 nm to about 410 nm.

15 6. A method of claim 3, wherein said second exposure radiation comprises primarily of wavelengths of from about 390 nm to about 410 nm.

20 7. A method of claim 4, wherein said step (iv) comprises measuring the intensity of said second fluorescent emission having a wavelength of about 440 nm.

25 8. A method of claim 5, wherein said step (iv) comprises measuring the intensity of said second fluorescent emission having a wavelength of about 440 nm.

9. A method of claim 6, wherein said step (iv) comprises measuring the intensity of said second fluorescent emission having a wavelength of about 440 nm.

30 10. A method of claim 1, wherein said control ratio is the ratio calculated by repeating steps (i)-(v) for a second area of skin of said subject.

11. A method of determining the effect of a treatment  
to the skin of a subject, said method comprising the steps  
5 of:

- (i) exposing a first area of skin to a first exposure radiation to induce said area of skin to emit a first fluorescent emission, wherein said first exposure radiation comprises primarily of wavelengths of from about 290 nm to about 300 nm and wherein said first area of skin was exposed to said treatment;
- 10 (ii) measuring the intensity of said first fluorescent emission having a wavelength of from about 320 nm to about 350 nm;
- (iii) exposing said first area of skin to a second exposure radiation to induce said area of skin to emit a second fluorescent emission, wherein said second exposure radiation comprises primarily of wavelengths of from about 330 nm to about 420 nm;
- 15 (iv) measuring the intensity of said second fluorescent emission having a wavelength of from about 380 nm to about 470 nm;
- (v) calculating a ratio of said intensity measured in step (ii) to said intensity measured in step (iv);
- 20 (vi) repeating steps (i) to (v) for a second area of skin, wherein said second area of skin was not exposed to said treatment; and

(vii) comparing said ratio for said first area of skin to said ratio for said second area of skin.

5 12. A method of claim 11, wherein said first exposure radiation comprises primarily of wavelengths of about 295 nm.

10 13. A method of claim 12, wherein said step (ii) comprises measuring the intensity of said first fluorescent emission having a wavelength of about 340 nm.

15 14. A method of claim 11, wherein said second exposure radiation comprises primarily of wavelengths of from about 390 to about 410 nm.

15. A method of claim 12, wherein said second exposure radiation comprises primarily of wavelengths of from about 390 nm to about 410 nm.

20 16. A method of claim 13, wherein said second exposure radiation comprises primarily of wavelengths of from about 390 nm to about 410 nm.

25 17. A method of claim 14, wherein said step (iv) comprises measuring the intensity of said second fluorescent emission having a wavelength of about 440.

30 18. A method of claim 15, wherein said step (iv) comprises measuring the intensity of said second fluorescent emission having a wavelength of about 440.

19. A method of claim 16, wherein said step (iv) comprises measuring the intensity of said second fluorescent emission having a wavelength of about 440.

5 20. A method of claim 11, wherein said first area of skin and said second area of skin are the same area of skin and wherein the calculation of the ratio for said second area of skin occurs prior to said treatment.